**Use Case 2:**

A close up of a map

Description automatically generated

The basic use case for when a user will use the device to launch a therapy program without external sensors attached to the device.

User powers on the simulator.

The CentralProccess class runs the initialize function upon power up and the

Menu is updated.

User Presses a Button to move the Menu selection.

1. The Display is updated to highlight the new selection.
2. A Beep is played through the speakers to indicate that a selection has been made.

A Program is selected and a Button is pressed to select it

1. The Program is executed using the launch process and checks if external sensors are attached, when not detected will get the result based on skin contact therapy.
2. Results are returned from the Electrode

User has ended the simulator use.

This use case demonstrates the flow of an end-to-end case of use when an external electrode is not connected. It covers nearly all major process of the simulator, apart from changing settings. The expected flow remains constant for all situations when the user is using the simulator without external sensors, and the only variable will be the returned results from the program execution.

The CentralProccess initialize function will instruct the Speaker, Clock, Battery, Electrode and Menu classes to construct given default values. This ensures the device is ready for operation by the user. Once complete, the simulator will wait for input from a user before proceeding with the next step of the flow. When a button is pressed by the user, the display will update the menu with a new selection given the directionality of the button they pressed. The Speaker class will play a sound, notifying the user that a new selection has been made as a means of haptics and feedback to indicate a successful action. Once the user has selected the desired program, they will press a button to select it, once again providing audio feedback. The simulator will then use the selected Program class’s launch function to begin execution of a given program. Once complete the results of the session will be returned.

A picture containing sitting, large, white

Description automatically generated

|  |  |
| --- | --- |
| **Use Case 2** | **Using the simulator without external sensors** |
| **Description** | This use case describes the process a user will go through to execute a therapy session without external sensors attached |
| **Actors** | User |
| **Triggering Event** | User powers on device |
| **Pre-Condition** | The simulator is running, but powered off |
| **Main Sequence** | 1. User powers on device 2. Presses button to indicate program selection 3. Selects desired program 4. Configures settings for program 5. Begins program |
| **Post-Condition** | N/A |
| **Resulting Event** | The user gets the results from the given session |
| **Alternative Scenarios** | Alternative 1: The user selects the simulator to not simulate the device on skin, which will pause the session |
| **Comments** | N/A |
| **Traceability** | ? |